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REPORT BY THE

Comptroller General

*Released*

OF THE UNITED STATES

# Improvements Needed In Controlling Major Air Pollution Sources

According to the Environmental Protection Agency, 92 percent of the major stationary air pollution sources are complying with emission standards or cleanup schedules. The Agency's data, however, is highly inaccurate. GAO estimates that the actual rate is considerably less than 92 percent. In addition, sources not in compliance are the largest polluters.

Enforcement actions by the Agency and States take a long time and are often ineffective.



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GAO 134  
*Rept*  
CED-78-165  
JANUARY 2, 1979



COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

B-166506

The Honorable Edmund S. Muskie  
Chairman, Subcommittee on Environmental  
Pollution  
Committee on Environment and Public  
Works  
United States Senate

- SEP 6401

Dear Mr. Chairman:

As requested in your September 22, 1977, letter, we determined whether sources in the stationary source air pollution control program are complying with emission standards. This is our report on the subject.

As requested by your office, we did not obtain written agency comments. The matters covered in this report, however, were discussed with agency officials and their comments are incorporated where appropriate.

As arranged with your office, we will make the report available to other interested parties 2 days after the issue date.

Sincerely yours,

A handwritten signature in black ink, appearing to read "R. F. Kellum".

ACTING Comptroller General  
of the United States

COMPTROLLER GENERAL'S  
REPORT TO THE SUBCOMMITTEE  
ON ENVIRONMENTAL POLLUTION  
COMMITTEE ON ENVIRONMENT  
AND PUBLIC WORKS  
UNITED STATES SENATE

IMPROVEMENTS NEEDED IN  
CONTROLLING MAJOR AIR POLLUTION  
SOURCES

D I G E S T

The extent to which the Nation's major air pollution sources, such as powerplants and steel mills, are complying with emission requirements is unknown, and the severity of the air pollution problem has not been fully realized.

D/G

Billions of dollars have been spent on air pollution controls, and since the Clean Air Act was passed in 1970, some progress has been made in cleaning the Nation's air.

ACC37  
ACC24

The Environmental Protection Agency's efforts to enforce the Clean Air Act, however, could have been more effective. Its efforts have mostly been administrative with almost no legal action. Consequently, violators have not taken corrective actions.

GAO found that:

(New York, ~~Chicago~~  
Illinois)

--In the two regions visited, almost 70 percent of the sources subject to enforcement action since 1973 were not in compliance with emission limitations. (See p. 16.)

--In one region 321 major sources were not in final compliance at the end of fiscal year 1977. An enforcement action had never been taken against about one-half of these sources. (See p. 16.)

F/G

The Agency's data systems, designed to track the amount of pollutants released into the air, are inaccurate and rarely compatible with the States' systems. As a result, incorrect progress and status reports have been issued to the Congress and the public. (See pp. 11 and 12.)

CED-78-165

--The Agency includes sources on cleanup schedules in its overall compliance statistic. These sources are actually not in final compliance and, therefore, should not be considered in the overall compliance statistic. Furthermore, GAO's review in two regions showed that one-half of the sources the Agency reported as in compliance with their cleanup schedule were, in fact, violating their schedule. (See p. 5.)

(F/C)

The Administrator, Environmental Protection Agency, should make sure that accurate, reliable, and complete data concerning both air pollutants and polluters are reported by taking certain actions such as:

- substantially increasing the number of Agency compliance monitoring inspections, (see pp. 13 and 14),
- strengthening Agency enforcement activities to reflect changes brought about by the Clean Air Act Amendments of 1977, and
- initiating enforcement actions against all sources not now in compliance and not on a cleanup schedule. (See. p. 18.)

(RA)

GAO discussed this report with Agency officials and they agreed with the findings, conclusions, and recommendations in the report.

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### ABBREVIATIONS

CDS	Compliance Data System
EPA	Environmental Protection Agency
GAO	General Accounting Office
SIP	State Implementation Plan

## CHAPTER 1

### INTRODUCTION

In a letter dated September 22, 1977, the Chairman, Subcommittee on Environmental Pollution, Senate Committee on Environment and Public Works, requested that we determine, among other things, the actual compliance status of stationary sources of air pollution, so that the new enforcement provisions of the 1977 Clean Air Act Amendments (Public Law 95-95) could be directed toward those sources not in compliance.

### BACKGROUND

The Clean Air Act of 1970 [42 U.S.C.A. §§ 7001 *et seq.* (West Supp. 1977)] is the primary legislation dealing with the Nation's air pollution problems. This act empowered the Environmental Protection Agency (EPA) to establish and enforce national ambient air quality standards.

The Nation was divided into 247 air quality control regions with each State responsible for attaining the national standards for the control regions located within the State. The law required each State to submit to EPA for approval a State Implementation Plan (SIP) specifying how the national standards would be achieved and maintained. The SIP was required to include emission limitations, schedules, and timetables for compliance, with measures necessary to insure attainment and maintenance of the national standards, including land use and transportation controls.

EPA was also responsible for setting emission standards for new pollution sources and for mobile sources, such as automobiles and trucks.

To carry out the law, EPA established two sets of standards for air pollutants--primary standards and secondary standards. Primary standards were designed to protect human health, while secondary or welfare standards were to clean the air of visible pollutants and to prevent corrosion, crop damage, and other effects of polluted air. EPA established national standards for six pollutants--sulfur oxides, total suspended particulates, carbon monoxide, photochemical oxidants, hydrocarbons, and nitrogen oxides--and was authorized to establish standards for additional pollutants when necessary.

Air pollution is a serious threat to the Nation's health. It has been shown to cause severe illness,

The increase requested by EPA will be used to implement the new requirements of the Clean Air Act Amendments of 1977.

#### CLEAN AIR ACT AMENDMENTS

In August 1977 the Clean Air Act was amended in an attempt to gain, among other things, more compliance from stationary sources. Although the amendments adhere to the basic strategy of the 1970 law, they detail the steps the States and EPA are to follow in implementing the provisions of the legislation. The amendments remove discretionary authority from EPA and the States in many air pollution control areas. The net result has been a large number of new mandatory actions.

The amendments set forth a program aimed at achieving the standards, in areas where they have not been attained, by 1982. EPA policy direction for stationary source enforcement has been changed in the following ways:

- EPA and States may no longer rely primarily on the administrative order process for establishing compliance schedules for major source violators, but must proceed to establish these schedules through judicial action.
- EPA's new authority to seek civil penalties will be used in civil actions to create a positive incentive for compliance.
- EPA or a delegated State is required to give notice of noncompliance to all major sources which are not in compliance by July 1, 1979, or 30 days after discovery of the violation, whichever is later, and to establish a penalty for continued noncompliance.

#### SCOPE OF REVIEW

We conducted our review at EPA headquarters in Washington, D.C.; EPA regional offices in New York, New York (Region II); and Chicago, Illinois, (Region V); and at State and local air pollution control agencies in Illinois, Indiana, Michigan, Minnesota, New Jersey, New York, Ohio, and Wisconsin. We also contacted eight other EPA regional offices to obtain general inspection information and analyzed statistical reports for these offices.

## CHAPTER 2

### REPORTED PROGRESS HAS BEEN INACCURATE

EPA's methods of reporting and determining compliance of stationary sources have not been reliable. Consequently, the actual compliance status of major stationary sources is still unknown, and the severity of the Nation's air pollution problems have not been put into the proper perspective.

EPA's efforts to monitor and control air pollution have been ineffective because:

- Progress is measured in terms of the number of sources in compliance with the standards and on compliance schedules, rather than considering emissions from all sources. Neither EPA nor many of the States maintain a complete, up-to-date emissions inventory from which an accurate portrayal of status could be made. According to our analysis, the actual compliance rate is considerably lower than the 92-percent figure reported by EPA.
- A source's compliance status is usually determined on the basis of unverified information submitted by the source, rather than by the more reliable methods of onsite testing or inspecting.
- In verifying State compliance certifications, EPA has found many violations. Even after violations are identified, however, EPA makes few followup inspections. In many cases where followup inspections are made, violations still exist months later.
- In reporting overall compliance statistics, EPA includes sources on a cleanup schedule 1/ even though they are not in final compliance and are actually emitting considerable amounts of pollutants.
- EPA and the States are not using data systems properly for effectively monitoring and controlling pollution.

---

1/A cleanup schedule specifies what and when actions must be taken for a source to achieve certain emission limitations before the source can be classified as in final compliance.

compliance or on a cleanup schedule account for 30 percent of the State's sulfur dioxide emissions.

--New Jersey has 710 major sources. Only 1.8 percent (13 sources) which are out of compliance or on a cleanup schedule make up 64 percent of the State's sulfur dioxide emissions.

--Only .7 percent (5 sources) of New Jersey's major sources which are out of compliance or on a cleanup schedule emit 24 percent of all hydrocarbons.

--Only 1.3 percent (9 sources) of New Jersey's major sources emit 92 percent of the nitrogen oxides from noncomplying sources.

#### LESS RELIABLE METHODS USED TO DETERMINE COMPLIANCE STATUS

Few major air pollution sources have been classified "in compliance" as a result of onsite inspections and source tests, the most reliable methods of determining compliance.

The following methods are used to determine whether a major source is in compliance with the SIP:

--Source testing--because actual emissions are obtained, this is considered the most reliable method of determining compliance.

--Inspection--consists of sight observations (smoke density readings), fuel sampling, and review of control equipment by State agencies or EPA. States are required to inspect each major source annually while EPA inspects 10 percent of the major sources under its compliance monitoring program. To develop enforcement actions, EPA also inspects sources known to be in violation.

--Certification--consists of the State agency computing emissions on the basis of process, control, and fuel data submitted by the source (usually when the initial permit to operate is applied for) and an annual update describing any changes.

--Shutdown--the source ceased operation.

inspections were for compliance monitoring; the remainder were for developing enforcement cases against sources already suspected of violations.

Out of 921 inspections of sources supposedly in compliance, 200, or 22 percent, were found in violation. The range of sources found out of compliance by the EPA regional inspections was 12 to 52 percent. The range for Regions V and II was 34 and 13 percent, respectively.

EPA's Region V policy is to reinspect violating sources within 4 months and to notify State agencies of violations for their followup action. The region inspected 233 major sources in fiscal year 1977 and found 79, or 34 percent, in violation. Only 22, or 28 percent, of the 79 violators have been reinspected by EPA. Fifteen sources, or 68 percent of those reinspected, were still in violation. Although the States were notified of almost all of these violations, followup inspections were conducted for only 31 of the 79 sources and 13 were found still in violation. The region's policy is to change the sources' compliance status in the data system only after the second inspection finds a violation. We found, however, that 50 percent of the sources in violation after the second inspection were still listed as in compliance. One source was still listed as in compliance after three inspections found it in violation.

#### SOURCES ON CLEANUP SCHEDULES SHOULD NOT BE CONSIDERED IN COMPLIANCE

EPA considers stationary sources on cleanup schedules in its overall compliance figure. These sources are in fact exceeding emission limitations and should not be considered in compliance.

Nationwide, 1,251 major sources, or 5 percent of the total 23,133 major sources, are in this category. Many of these sources are past their scheduled final compliance date or beyond scheduled progress by more than 90 days--EPA's criteria for placing a source in violation of its cleanup schedule. Some sources have been on amended or extended schedules for as long as 6 years.

Regions II and V show 464 of 6,499 major sources, or 7 percent, in compliance with cleanup schedules. In our examination of State agency files, we could find the status for only 285 of the 464 sources. For these sources the following was found:

required the burning of low sulfur fuel and the introduction of a supplementary control system. Final compliance is scheduled for January 1980. The manufacturer was still not in compliance 4 years after the initial order, but was erroneously shown by EPA as in compliance with a cleanup schedule. EPA current records show the source as not in compliance. EPA issued a Notice of Violation in November 1976, and the source brought suit against EPA in February 1978, thus precluding further EPA enforcement action.

In March 1974, a copper mine with total suspended particulate emissions of 4,700 tons a year was ordered by the State to install control equipment by March 1976. As of June 1976, the source had not begun installation and the order was amended to allow final compliance by December 1977--almost 4 years after the original order. This source is shown by EPA to be in compliance with a cleanup schedule, although it is 18 months behind the original schedule. According to EPA this source achieved compliance in December 1977.

#### DATA SYSTEMS ARE NOT USED TO THEIR FULLEST POTENTIAL

Relatively few major sources account for large amounts of pollution. EPA has no reliable means of correlating emissions with compliance status and, therefore, is unable to determine the impact violating sources have on air quality.

A comprehensive record of polluting sources is important in planning and administering an air pollution abatement program. If this information were available, areawide air pollution strategies and controls could be developed.

EPA has two data systems for determining and maintaining information on the amount of pollutants in the air, but the systems are not combined to obtain optimum efficiency as a management and reporting tool.

The National Emission Data System is a comprehensive accumulation of emissions information from all types of sources. A source is required to submit an engineering estimate of its emissions based on such factors as fuel, longevity of operation, and any control devices installed. The States' emission inventory, which is subsequently fed into the National Emission Data System, consists of this data.

The Compliance Data System (CDS) tracks the compliance status of the Nation's major sources of air pollution. Information fed into this system is provided to EPA by State

## CONCLUSIONS

Since 1970 some progress has been made in cleaning the Nation's air. However, the types and volumes of discharged emissions--the most important compliance indicators--are not being obtained and analyzed by either EPA or most of the States; therefore, the status of the Nation's air pollution control activities cannot be accurately determined. EPA's data systems, designed to track the status of pollutants and polluters, also contain numerous inaccuracies and omissions and are not compatible with State systems. Results of State and EPA inspections are not routinely recorded or reflected in compliance and progress reports, despite the high degree of noncompliance found during these inspections. If inspection results are not analyzed on a State-by-State basis, it seems unlikely that the compliance monitoring program will achieve its intended purpose. Consequently, inaccurate progress and status reports have been and will continue to be issued to the Congress and the public.

Due to inaccurate and unavailable data, we were unable to determine the actual compliance status of the 23,000 major stationary air pollution sources. However, it appears that the percentage of major sources in compliance with emissions standards and cleanup schedules is considerably lower than the 92 percent proposed by EPA.

We believe that the major sources not in compliance are generally those which will prove to be the most difficult to bring into compliance. This is disturbing because these sources emit a disproportionately large share of pollutants and will continue to severely affect the Nation's air quality for many years.

## RECOMMENDATIONS TO THE ADMINISTRATOR, EPA

To better inform the Congress and public and to increase the effectiveness of enforcement measures, we recommend that the Administrator, EPA:

- Improve the usefulness, accuracy, and reliability of EPA's data systems by requiring (1) both EPA and the States to report and enter inspection results in CDS and (2) EPA regions to track and accurately report the status of sources on compliance schedules.
- Consider using grant deductions to encourage more source inspections by State and local agencies.

## CHAPTER 3

### ENFORCEMENT ACTIONS--NUMEROUS BUT INEFFECTIVE

Enforcement actions taken by EPA and the States have had limited success in bringing major stationary sources into compliance with emission standards. These actions have mostly been administrative rather than legal and, consequently, have not brought about effective corrective action. As a result, many major sources of air pollution are still not in compliance with emission standards and continue to pollute the Nation's air.

#### TYPES OF ENFORCEMENT ACTIONS

Until modified by the 1977 amendments, the Clean Air Act provided for three types of enforcement actions:

- Notice of violation. A notice issued to violators giving them 30 days to comply with SIP requirements. A conference is held for the violator to present any information bearing on the finding or nature of the violation and to explain any actions taken or planned to achieve compliance.
- Administrative order. An EPA order stating the nature of the violation and specifying a reasonable time for compliance, referred to as a cleanup schedule.
- Civil action. EPA could file a civil action in the district court of the United States where the violator was located when a source refused to comply with an order. The action may include a permanent or temporary injunction. States have similar actions available under State laws, although the titles vary.

Since 1972, EPA has taken 2,473 enforcement actions nationwide. However, 2,431 of these, or 98 percent, were notices of violation and administrative orders; only 42, or 2 percent, were court actions. During fiscal year 1977, EPA took 662 enforcement actions and the States took 15,646 actions as follows:

In Region V, 273 notices have been issued by EPA since 1973. No further formal action has been taken by EPA on 87, or 32 percent, of the cases which involve 79 sources. EPA stated that it takes a long time to negotiate a cleanup schedule with some sources. Although EPA turned these cases over to the States, administrative orders have been issued to only 27 of the 79 sources involved. The remaining 52 sources have not been subject to further enforcement action and, therefore, are not on a cleanup schedule. At the time of our review, none of the 79 sources involved were in compliance.

In commenting on the report in August 1978, EPA officials stated that subsequent to our review some action has been taken on these 52 cases. Final compliance has been achieved in 7 cases. The other 45 are in some aspect of the enforcement process.

#### CHANGES IN ENFORCEMENT STRATEGY

The Clean Air Act Amendments of 1977 now require judicial action against major stationary sources in violation of final compliance orders. The amendments discourage lengthy negotiations with sources known to have a history of noncompliance. Administrative penalties now remove the competitive economic advantage of not complying with the Clean Air Act by computing the penalty on the basis of the economic value to be gained by delaying compliance. Courts may also fine violators up to \$25,000 per day of noncompliance. Despite the act's intent, EPA's immediate enforcement plans still call for a large amount of administrative actions, some against sources with a history of delaying actions.

Nationwide, EPA and the States plan enforcement actions against only 785--slightly over half--of the remaining 1,406 major sources considered still not in compliance and not on a cleanup schedule. The 785 planned actions include only 371 court actions; the remaining 414 actions, or 53 percent, are delayed compliance orders. Under the Clean Air Act Amendments, EPA cannot disapprove a State delayed compliance order if it meets statutory requirements. Most of the planned administrative actions are State orders. To the extent EPA issues delayed compliance orders, however, such orders should not be used against sources for which administrative enforcement has been ineffective in the past.

In October 1978, EPA officials told us that about 100 cases have been forwarded to the Justice Department for court action.

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## CONCLUSIONS

The use of administrative actions to attain compliance has resulted in some improvement in air quality; however, these actions have been untimely and ineffective in bringing recalcitrant violators into compliance. In many of the administrative actions, EPA and the States have taken little followup or court actions and the violators have been allowed to remain out of compliance, and thus are still permitted to pollute. The new enforcement strategy calling for increased numbers of court actions appears to be a good first step in bringing major violators into compliance with emission standards.

## RECOMMENDATIONS TO THE ADMINISTRATOR, EPA

We recommend that the Administrator, EPA:

- strengthen EPA's enforcement activities to reflect changes brought about by the Clean Air Act Amendments of 1977,
- initiate enforcement actions against all sources not now in compliance and not on a cleanup schedule,
- require timely followup to future administrative actions issued to violators.

<u>Type of action</u>	<u>EPA</u>	<u>Percent</u>	<u>States</u>	<u>Percent</u>
Notice of violation	381	58	9,475	61
Administrative order	259	39	3,630	23
Civil action	<u>22</u>	<u>3</u>	a/ <u>2,541</u>	<u>16</u>
Total actions	662	100	15,640	100

a/ Of the 2,541 civil actions taken by the States, 1,613, or 67 percent, were by local agencies in California. An EPA official said that the fines and penalties in these cases were quite modest.

Despite these enforcement actions, a large number of sources remain in violation. In Regions II and V, 68 percent of the sources which were subject to enforcement actions since 1973 are currently not in final compliance.

In addition, many sources in violation have never been subject to enforcement action. For example, in EPA Region V there were 321 major sources not in final compliance at the end of fiscal year 1977. Neither EPA nor the States had taken any enforcement action against 157, or 49 percent, of these sources.

EPA officials said that enforcement actions were not initiated against many of these sources because the State they are located in--Ohio--did not have an enforceable SIP for sulfur dioxide. In August 1976, EPA exercised its authority under the Clean Air Act and imposed a sulfur dioxide regulation. A stay of enforcement of this regulation was granted, however, by a Federal appeals court. In February 1978, the court affirmed EPA's regulation and the SIP became enforceable. EPA officials stated that this failure--the lack of an enforceable SIP--illustrates a breakdown of the whole regulatory system, rather than just the enforcement process.

#### SLOW ACTION TAKEN ON NOTICES OF VIOLATION

Issuing notices of violation without further formal action has little, if any, effect on bringing violators into compliance. EPA has issued notices to many sources without a followup administrative order placing the violator on a cleanup schedule. While some of these cases were turned over to the States for issuance of the order, no further actions have been taken on others to bring them into compliance.

- Initiate a program to attain compatibility between EPA and State data systems. (CDS and the National Emission Data System.)
- Substantially increase the number of EPA compliance monitoring inspections.

and local pollution control agencies. It lists the major air pollution sources and gives their probable compliance with emission regulations. The regions, however, have not used CDS to its fullest potential; for example:

- Although CDS was designed to include emission data, only a few States combine their emission and compliance status data, and EPA has never combined them.
- CDS is cross-indexed into the National Emission Data System; however, 39 percent of the sources listed had missing index numbers. Officials said that they do not have time to enter this data.
- EPA inspection results can be entered into CDS, but only 3 of the 10 EPA regions do so. Of those entered, 49 percent were missing because of time constraints.
- State inspection data is not entered into CDS by 7 of the 10 EPA regions. Of those entered, 40 percent were missing.

Six of the eight States we visited had computerized compliance data systems; none of these were compatible with EPA's CDS. This causes most States to manually update CDS listings periodically. Some EPA regions receive computer tapes which are machine converted to CDS format, directly from the States. Since CDS is updated quarterly by EPA regions, the data could be over 3 months old before it is put in the system. EPA has considered allowing States direct access to CDS, but the process has never been finalized.

Other data which would allow EPA to better utilize CDS, such as the Standard Industrial Code of major sources, is not entered because resources are lacking. In regions II and V such data was missing for 28 and 33 percent of the sources, respectively. EPA regional officials told us they did not have the staff available to gather the missing data.

Different criteria for major and minor sources led to a significant difference between EPA's and the State of Ohio's data. Under Ohio's criteria, 167 sources were considered as minor; but under EPA criteria, they should have been classified as major sources. These were unreported by the State as of September 30, 1977. Failure to include these facilities in CDS made the State's overall compliance rate 65 percent instead of 51 percent, as seen when the additional sources are included.

<u>Status</u>	<u>Number of sources</u>	<u>Percent of total</u>
In compliance with original schedule	136	48
In compliance with amended schedule	<u>7</u>	<u>2</u>
Total in compliance	<u>143</u>	<u>50</u>
In violation of:		
Original schedule by more than 90 days	87	30
Amended schedule by more than 90 days	22	8
Original schedule by less than 90 days	25	9
Amended schedule by less than 90 days	<u>8</u>	<u>3</u>
Total in violation of schedule	<u>142</u>	<u>50</u>
Total	<u>285</u>	<u>100</u>

As shown above, 50 percent of the sources EPA considered in compliance were violating its schedule; 38 percent by more than the 90-day EPA criteria. Examples of schedule violations follow.

In February 1972, a paper manufacturer emitting 118 tons of particulates a year was issued a State order to submit a control plan by April 1972. When the manufacturer did not comply, a second order was issued requiring installation of control equipment by September 1973. The installed equipment failed to meet emission standards, and in March 1974, a plan to install new equipment was submitted; this was 5 months after final compliance was due. This plan called for final compliance by March 1976--4 years after the original order. In March 1977, the manufacturer--still not in compliance--was fined \$1,000 by the State. The manufacturer then requested an extension because it believed emission control equipment was not available. As of March 1978, 6 years after the initial order, the extension request was still pending and the manufacturer was not in compliance, although EPA shows it as in compliance with a cleanup schedule.

In May 1974, a chemical manufacturer emitting 38,572 tons of sulfur dioxide a year was issued a State order; the order did not specify how the standards were to be met. In July 1977, however, another State order was issued which

The 19,973 major sources reported in full compliance at the end of fiscal year 1977 were so determined as follows:

<u>Method</u>	<u>Number of sources</u>	<u>Percent</u>
Source test	498	3
Inspection	4,462	22
Certification	14,458	72
Shut down	<u>555</u>	<u>3</u>
Total sources in compliance	<u>19,973</u>	<u>100</u>

As shown above, only 25 percent of the major sources were found in compliance by the most reliable methods and 3 percent were based on shutdowns. The remaining 72 percent were certified by the States based on unverified information submitted by the sources.

The number of sources determined in compliance by inspection--one of the most reliable methods--is 22 percent, with regional variances from 0 to 86 percent. The high EPA region, inspecting 86 percent of the sources, deducts \$500 in EPA grant funds from States for each source determined not in compliance. Although this method has been successful, only one region uses it. Several regions have considered this concept, and EPA reviews of regional enforcement programs have recommended it; yet, 9 of the 10 EPA regions still do not use it. Officials of the low region said inspections are being made, but they have not had the time or resources to enter the data into EPA's computer system.

STATE EFFORTS TO DETERMINE COMPLIANCE  
ARE UNRELIABLE

EPA monitoring programs showed that many sources classified "in compliance" by the States were actually violating SIP requirements. In most cases, however, EPA did not act adequately to bring these sources into compliance.

To verify State field investigation and compliance determination efforts, EPA developed a compliance monitoring inspection program. Under this program regional offices were to inspect 10 percent of the major sources the States reported in compliance. Only 3 of the 10 EPA regions keep compliance monitoring inspection results in their data systems. EPA regional offices reported inspecting 2,369 of the 19,973 major sources so listed, seemingly exceeding the 10-percent goal. However, only 1,813 of these reported

PROGRESS REPORTING METHOD DOES  
NOT SHOW SEVERITY OF PROBLEM

Progress measured in terms of sources in compliance does not accurately portray the seriousness of the Nation's air pollution problems. Although EPA claims that 92 percent of the Nation's major sources are in compliance with emission standards or cleanup schedules, indications are that a disproportionate share of emissions comes from sources violating standards and those on cleanup schedules. While determining the number and percent of sources in compliance with the general provisions of the act is one indicator of compliance achievement, the most important indicator is air quality. Without equating the volume and type of emissions with sources in violation, the severity of the problem is not put into the proper perspective. Neither EPA nor many of the States maintain a complete, up-to-date emissions record from which emissions can be traced to specific sources.

The EPA Administrator recently stated, "\* \* \* we're still a long way from having healthy air throughout the country." A February 1978 EPA report showed that only one urbanized area (Honolulu, Hawaii) with a population greater than 200,000 had attained its air quality standards for all pollutants. We believe this is a direct indication that EPA's 92-percent compliance claim is an overstatement. This belief is further supported in the following examples.

Region V, predominated by coal-fired powerplants, reports that 233 powerplants are responsible for 81 percent of the region's sulfur dioxide emissions. Even though 52 percent of these plants (121) are in compliance, they account for only 26 percent of the sulfur dioxide emissions. The 112 plants not in compliance and those on cleanup schedules account for 74 percent of sulfur dioxide emissions and 78 percent of emissions from all powerplants.

Forty powerplants in the region are not in compliance or on a cleanup schedule. Enforcement action has been taken against 30 of these; notices of violation have only been issued to 6; 16 have been issued orders; and 8 have been taken to court. No enforcement action has been taken against the remaining 10. Seventy-two powerplants are on cleanup schedules; however, 29 of these are in violation of those schedules.

In Region II, a variety of sources, although few in number, account for large emissions.

--New York has 1,120 major sources. Only 1.5 percent (17 sources) which are not in final

We reviewed pertinent legislation, regulations, guidance documents, SIPs, Federal and State inspection and enforcement case files and interviewed officials at headquarters, regional offices, and State agencies.

We also used examples to show the degree of compliance by stationary sources with Clean Air Act regulations. This information was obtained from reports maintained by EPA and the cognizant States. The identities of the major sources reviewed are not reported. We believe such disclosure would be unfair given the large universe of sources. Examples used in the report are intended only to demonstrate the adequacy of Federal compliance and enforcement actions. We did not contact the sources reviewed.

The statistical information in this report is generally based on fiscal year 1977 Agency records. In some cases, however, the information was updated to reflect a more current status.

especially among infants, the elderly, and people with weak hearts or lungs. Studies have shown a direct relationship between prolonged exposure to air pollution and emphysema, bronchitis, asthma, and lung cancer.

Generally, air pollution originates from two sources--stationary and mobile. Each contributes equally to the Nation's air pollution problem. The Clean Air Act states: "the prevention and control of air pollution at its source is the primary responsibility of State and local governments." The States, through their SIPs, have primary responsibility for implementing, maintaining, and enforcing the national standards.

Federal enforcement action becomes necessary whenever a source violates an SIP and the State cannot or will not enforce it. EPA's compliance enforcement program is to encourage appropriate action at the State level, with EPA becoming involved primarily when such State actions do not seem timely or effective.

EPA estimates that there are over 200,000 stationary sources subject to SIP emission standards. Of these, about 23,000 are major emitters (facilities capable of emitting over 100 tons of a pollutant per year). These major sources produce about 85 percent of all air pollution emitted by stationary sources.

Although the Clean Air Act made the States primarily responsible for attaining the national standards, it empowered EPA to inspect; require reports and recordkeeping; and, when deemed necessary, require samples of emissions to verify compliance.

Costs of controlling air pollution are high. In December 1977, the Council on Environmental Quality estimated that total air pollution abatement costs for 1976 were about \$12 billion and for the years 1976 through 1985 they would be almost \$200 billion. This is over one-third of the estimated abatement expenditures for all types of pollution.

Funding for the stationary source enforcement program has been as follows:

1977 actual	\$11,689,000
1978 estimate	15,161,000
1979 request	24,363,000





The Agency, under its stationary source enforcement program, is responsible for bringing 23,000 major air pollution sources into compliance with the Clean Air Act standards. Because the data is either unreliable or unavailable, however, the program's actual status cannot be determined. (See pp. 6 and 7.)

The Agency claims that 92 percent of these sources are complying with emission standards or are on cleanup schedules. GAO, however, found no data which accurately indicates the sources' compliance status. Although GAO was unable to determine the actual compliance rate, it appears that it is considerably less than the 92 percent reported by the Agency. (See p. 5.)

The Agency's efforts to monitor and control air pollution have been ineffective because:

- Progress is measured by determining the number of sources both complying with the standards and on compliance schedules rather than considering emissions from all sources. Neither the Agency nor many States maintain a complete, up-to-date emissions record from major stationary sources, even though a disproportionate share of emissions come from sources (1) not in final compliance and (2) on cleanup schedules.
- A source's compliance status is usually based on unverified information submitted by the source, rather than by more reliable methods, such as onsite testing or inspecting. Seventy-two percent of "in compliance" classifications were based on unverified data.
- The Agency's compliance monitoring program has shown that 22 percent of sources the States classified "in compliance" are actually not.



